

Utah Health Status Update

KEY FINDINGS

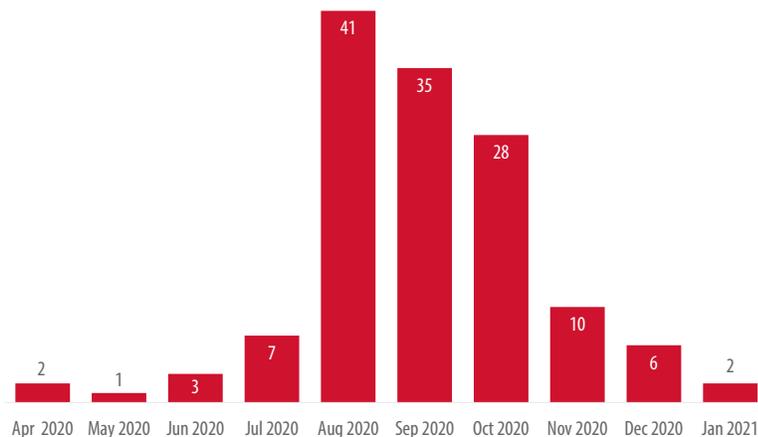
- 134 Utahns were hospitalized and one Utahn died during a 10-month period of the Utah EVALI outbreak (Figure 1).
- The majority of cases (65%) were between the ages of 14 and 29 (Figure 2).
- Symptoms of EVALI include respiratory symptoms (cough, shortness of breath, or chest pain), gastrointestinal symptoms (nausea, vomiting, stomach pain, or diarrhea), and nonspecific constitutional symptoms (fever, chills, or weight loss).

Utah E-cigarette or Vaping Product Use-Associated Lung Injury (EVALI)

In the summer of 2019, public health across the United States investigated an outbreak of e-cigarette, or vaping, use-associated lung injury (EVALI). By mid-January 2020, more than 2,800 hospitalization cases and 68 deaths were reported nationwide.¹ The Utah Department of Health reported 134 Utah hospitalization cases for EVALI from April 2019 to January 2020 (Figure 1). In addition to these hospitalizations, Utah reported one EVALI-related death and exhibited the highest population-adjusted EVALI rate in the United States (four cases per 100,000 people).² Although the number of new cases reported have significantly decreased since a peak in late August 2019, EVALI is an example of the public health threat created by vaping devices and unregulated vape products.³

Timeline of Utah EVALI Cases, April 15, 2019–January 14, 2021

Figure 1. The majority of cases in Utah had symptoms beginning in August and September.



Utah Division of Disease Control and Prevention, 2020

Symptoms of EVALI include:

- respiratory symptoms (cough, shortness of breath, or chest pain)
- gastrointestinal symptoms (nausea, vomiting, stomach pain, or diarrhea)
- nonspecific constitutional symptoms (fever, chills, or weight loss)

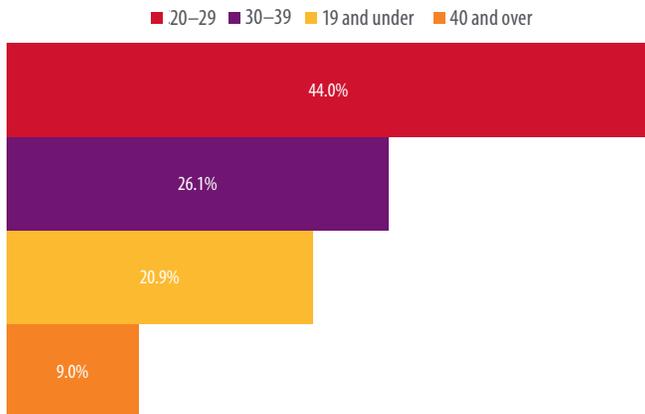
Some patients reported symptoms developing slowly over a few days, while other patients reported their symptoms developed over several weeks.

In 2019, age groups with the highest vaping rates in Utah were among 8th, 10th, and 12th-grade students (ages 13–18), young adults (ages 18–24), and people ages 25–34, with current e-cigarette use rates of 12.4%, 18.5%, and 9.6%, respectively.⁴⁻⁵ Similarly, the majority of Utah EVALI patients (65%) were between the ages of 14 and 29 (Figure 2).

Feature article continued

Utah EVALI Cases by Age Distribution, 2020

Figure 2. The majority of cases in Utah were under the age of 30.

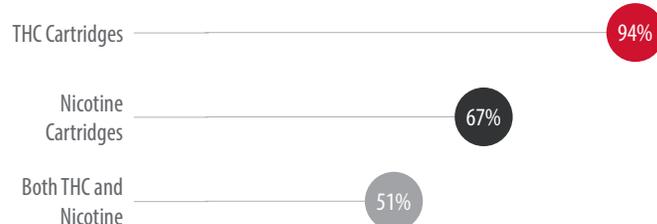


Utah Division of Disease Control and Prevention, 2020

Regarding the substance use of Utah’s EVALI cases who self-reported or were interviewed, 94% reported vaping THC cartridges in the three months prior to developing EVALI. Meanwhile, 67% of cases reported vaping nicotine cartridges in the three months prior to developing EVALI, and 51% reported vaping both THC and nicotine during that time (see Figure 3).

Percentage of Vape Product Usage

Figure 3. 94% of interviewed Utah EVALI cases reported vaping THC cartridges.



Utah Division of Disease Control and Prevention, 2020

The Centers for Disease Control and Prevention (CDC) identified vitamin E acetate (VEA) as a substance of concern regarding the cause of this outbreak.⁶ VEA is not typically found in nicotine liquids or THC cartridges, but it is used as an additive, most notably in black market THC-containing vaping products. VEA typically does not cause harm when ingested as a vitamin supplement, however previous research suggests when VEA is inhaled, it may interfere with normal lung function. The Utah Department of Health and local health departments collected products from eight interviewed cases, and tested the contents of 19

prefilled THC-containing cartridges and 20 nicotine-containing vaping liquids. Of the THC cartridges, 17 of the 19 samples had detectable amounts of VEA. By contrast, none of the 20 liquids containing nicotine had detectable amounts of vitamin E acetate.

EVALI is an illness that results from the use of contaminated vape cartridges. The use of unregulated vape products can result in severe health risks or death. Furthermore, vaping devices can be customized by their users to deliver drugs other than nicotine or THC. Increased regulation of vape products and vaping devices, regulation of access to those products, and better enforcement are needed to reduce vape-related health risks.

1. Outbreak of Lung Injury Associated with the Use of E-Cigarette, or Vaping, Products. Centers for Disease Control and Prevention (CDC) Office on Smoking and Health, 2019, https://www.cdc.gov/tobacco/basic_information/e-cigarettes/severe-lung-disease.html. Accessed 11 Jan. 2021.
2. Arons M, Barnes S, Whittle K, et al. Strengthening Public Health Partnerships in Utah: Inter-agency Collaboration With Law Enforcement And State Health Department During An Outbreak Associated With An Illegal Substance. *International Journal of Health Policy* Feb 2021;88.
3. Lewis N, McCaffery K, Sage K, et al. E-cigarette Use, or Vaping, Practices and Characteristics Among Persons with Associated Lung Injury---Utah, April-October 2019. *MMWR Morb Motal Wkly Rep* 2019;69:953-956.
4. Tobacco Prevention and Control Program. *Prevention Needs Assessment Tobacco Questions, SHARP SURVEY 2019*. Salt Lake City: Utah Department of Health.
5. Utah Department of Health. *Behavioral Risk Factor Surveillance System (BRFSS), 2019*. Salt Lake City: Utah Department of Health, Center for Health Data and Informatics.
6. Ellington S, Salvatore P, Ko J, et al. Update: Product, Substance-Use, and Demographic Characteristics of Hospitalized Patients in a Nationwide Outbreak of E-cigarette, or Vaping, Product Use—Associated Lung Injury—United States, August 2019-January 2020. *MMWR Morb Motal Wkly Rep* 2020;69(2):44-49.

Utah Cigarette Smoking and Quit Rates During COVID-19

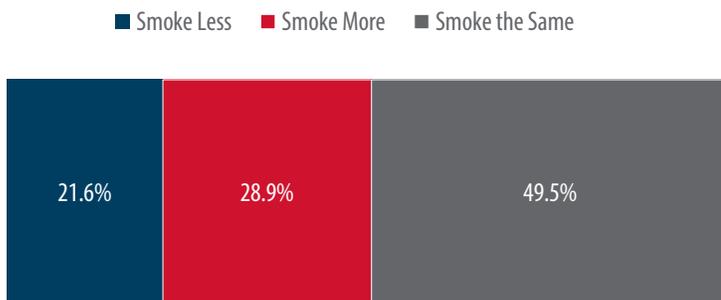
Smoking causes respiratory diseases, suppresses immune functions, triggers inflammation, and increases the risk for severe illness from COVID-19.¹⁻² However, since nicotine is highly addictive, quitting smoking is difficult and many times requires several quit attempts. Increased pandemic-related stress and social isolation may pose additional challenges to successful quitting.

To better understand tobacco use and quit attempts during the COVID-19 pandemic, the Utah Department of Health Tobacco Prevention and Control Program worked with RTI International to conduct an address-based sample survey to determine the prevalence of tobacco use as well as the factors promoting, and impeding tobacco use among Utah adults. The survey received 3,390 responses between October and December 2020 with a response rate of 54.2%.

Of the address-based sample survey respondents, 8.2% reported they currently smoked cigarettes. Utah's 2019 adult smoking rate was comparable at 8.0%.³ When asked if they were smoking more, less, or about the same as they did before the COVID-19 pandemic, approximately half of Utah's current smokers (49.5%) responded they smoked about the same; 28.9% responded they smoked more than before the pandemic, and 21.6% reported they smoked less (Figure 1). Less than half of current smokers (43.9%) reported they had made a serious quit attempt since the beginning of the pandemic (Figure 2). The rate of quit attempts is lower than Utah's 2019 rate of 56.4%.³ More information is needed to better understand and address factors hindering quit attempts during the COVID-19 pandemic.

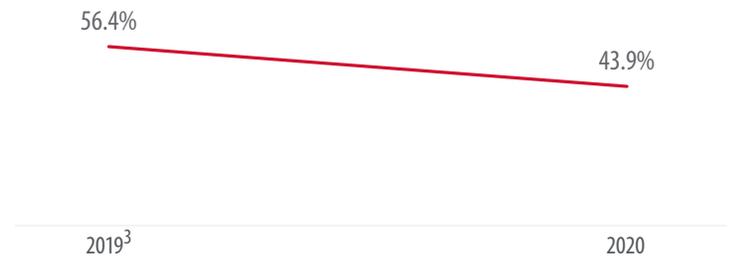
Utah Adult Smoking Behavior During the COVID-19 Pandemic

Figure 1. Smoking behavior remained the same for about half of the smokers surveyed.



Utah Rate of Adult Smoking Quit Attempts, 2019 vs 2020

Figure 2. Fewer adults reported attempts to quit smoking in 2020 compared to 2019.



Utah TPCP ABS Survey 2020 (preliminary data)

Note: Data from this survey have not been released and are considered preliminary.

1. U.S. Department of Health and Human Services. The Health Consequences of Smoking – 50 Years of Progress. A Report of the Surgeon General: https://www.ncbi.nlm.nih.gov/books/NBK179276/pdf/Bookshelf_NBK179276.pdf. Retrieved on January 25, 2021.
2. Centers for Disease Control and Prevention. Covid-19: <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html#smoking>. Retrieved on January 25, 2021.
3. Utah Department of Health, BRFSS 2019

Adolescent Health Report 2019

In spring 2019, the Utah Department of Health (UDOH) partnered with the Utah Department of Human Services Division of Substance Abuse and Mental Health (DSAMH) and the Utah State Board of Education (USBE) to conduct the School Health and Risk Prevention (SHARP) survey project in public schools throughout the state. This project included the Prevention Needs Assessment (PNA), a survey of students in grades 8, 10, and 12 with questions about a variety of health behaviors. The results of this survey are presented in the [2019 Adolescent Health Report](#).

Results presented in the report are selected indicators from five overall categories: Chronic Conditions (asthma, diabetes), Lifestyles (physical activity, obesity, family meals, and tanning), Mental Health (feeling sad or hopeless, psychological distress, and suicide), Substance Abuse (binge drinking, marijuana, prescription drug abuse, and tobacco use), and Violence and Injury (motor vehicle safety, safe dating, and bullying). For each indicator, information can be found on the significance of the issue with data visualizations depicting percentages of Utah students engaging in behaviors or risks by grade level, sex, and geography. Additionally, this report highlights differences in student health indicators by each local health district and over time in relation to the state average.

This report is unique because the PNA is the only youth health survey in Utah which provides data at a local level. The data presented in this report are expected to help school administrators, teachers, policymakers, and public health practitioners to identify the health and safety needs of Utah students in their local health district and take steps toward protecting and improving student health. The full report can be accessed on the Choose Health website: https://choosehealth.utah.gov/documents/pdfs/prek-12/2019_utah_adolescent_health_report_final.pdf

Key findings from the 2019 Adolescent Health Report include:

Almost **One in Three** Utah students reported feeling sad or hopeless (**30.7%**). Female students, students in Salt Lake County, and students in higher grade levels were significantly more likely to have reported feeling sad or hopeless, and were more likely to seriously consider suicide. Though feelings of sadness and hopelessness among students increased from 2017 to 2019, those making a suicide plan or attempting suicide decreased.

Almost **One in Five** students reported being bullied at school (**23.8%**), with younger students, female students, and students in the TriCounty area reporting experiencing bullying at significantly higher rates; however, reports of bullying decreased statewide from 2017 to 2019.

Only **17.9%** of students statewide were physically active for 60 minutes or more each day, a decrease from 2017 to 2019. Physical activity rates decreased with each increasing grade level. Students in Central Utah and Southeast Utah had better rates of physical activity than their peers in other areas of the state.

Use of electronic cigarettes has greatly increased in recent years, with **12.4%** of students statewide reporting recent use of vape products (though students in San Juan report the lowest use of E-cigarettes in the state). E-cigarette use rates increased with each increasing grade level. However, use of alcohol, prescription drugs, cigarettes, and smokeless tobacco decreased among students from 2017-2019.

14.6% of students statewide reported missing at least one day of school due to asthma in the past year, a decrease in missed school days due to an asthma attack from 2017 to 2019.

Monthly Health Indicators

Monthly Report of Notifiable Diseases, January 2021	Current Month # Cases	Current Month # Expected Cases (5-yr average)	# Cases YTD	# Expected YTD (5-yr average)	YTD Standard Morbidity Ratio (obs/exp)
Campylobacteriosis (<i>Campylobacter</i>)	25	36	25	36	0.7
COVID-19 (SARS-CoV-2)	Cases updated at https://coronavirus.utah.gov/case-counts/ .				
Shiga toxin-producing <i>Escherichia coli</i> (<i>E. coli</i>)	13	5	13	5	2.8
Hepatitis A (infectious hepatitis)	1	7	1	7	0.1
Hepatitis B, acute infections (serum hepatitis)	1	1	1	1	0.8
Influenza*	Weekly updates at http://health.utah.gov/epi/diseases/influenza .				
Meningococcal Disease	0	1	0	0	0.0
Pertussis (Whooping Cough)	0	24	0	24	0.0
Salmonellosis (<i>Salmonella</i>)	12	24	12	24	0.5
Shigellosis (<i>Shigella</i>)	4	4	4	4	0.9
Varicella (Chickenpox)	6	25	6	25	0.2
Quarterly Report of Notifiable Diseases, 4th Qtr 2020	Current Quarter # Cases	Current Quarter # Expected Cases (5-yr average)	# Cases YTD	# Expected YTD (5-yr average)	YTD Standard Morbidity Ratio (obs/exp)
HIV/AIDS†	31	36	81	97	0.8
Chlamydia	2,648	2,558	7,545	7,500	1.0
Gonorrhea	777	660	2,085	1,772	1.2
Syphilis	25	32	76	87	0.9
Tuberculosis	5	6	19	20	1.0
Medicaid Expenditures (in Millions) for the Month of January 2021	Current Month	Expected/ Budgeted for Month	Fiscal YTD	Budgeted Fiscal YTD	Variance over (under) Budget
Mental Health Services	\$11.1	\$10.5	\$122.0	\$123.2	\$(1.3)
Inpatient Hospital Services	\$18.6	\$17.9	\$107.4	\$108.0	\$(0.6)
Outpatient Hospital Services	\$2.8	\$2.4	\$20.1	\$21.4	\$(1.4)
Nursing Home Services	\$43.8	\$43.0	\$177.8	\$178.1	\$(0.3)
Pharmacy Services	\$9.9	\$9.2	\$73.2	\$74.4	\$(1.2)
Physician/Osteo Services‡	\$6.9	\$5.8	\$29.9	\$30.4	\$(0.5)
Medicaid Expansion Services	\$68.1	\$66.1	\$435.4	\$436.2	\$(0.8)
***TOTAL MEDICAID	\$330.3	\$328.1	\$2171.5	\$2171.9	\$(0.4)

|| Updates for COVID-19 can be found at <https://coronavirus.utah.gov>. This includes case counts, deaths, number of Utahns tested for disease, and latest information about statewide public health measures to limit the spread of COVID-19 in Utah.

* More information and weekly reports for Influenza can be found at <http://health.utah.gov/epi/diseases/influenza>.

† Diagnosed HIV infections, regardless of AIDS diagnosis.

Notes: Data for notifiable diseases are preliminary and subject to change upon the completion of ongoing disease investigations.

Active surveillance for West Nile virus will start in June for the 2021 season.

‡ Medicaid payments reported under Physician/Osteo Services does not include enhanced physician payments.

***The Total Medicaid Program costs do not include costs for the PRISM project.

Monthly Health Indicators

Program Enrollment for the Month of January	Current Month	Previous Month	% Change§ From Previous Month	1 Year Ago	% Change§ From 1 Year Ago
Medicaid	372,975	365,284	+2.1%	287,382	+29.8%
CHIP (Children's Health Ins. Plan)	15,932	16,062	-0.8%	17,123	-7.0%
Commercial Insurance Payments#	Current Data Year	Number of Members	Total Payments	Payments per Member per Month (PMPM)	% Change§ From Previous Year
Medical	2019	11,881,900	\$ 3,569,847,963	\$ 303.86	-1.1%
Pharmacy	2019	10,423,251	\$ 774,925,995	\$ 66.32	+12.1%
Annual Community Health Measures	Current Data Year	Number Affected	Percent \ Rate	% Change§ From Previous Year	State Rank** (1 is Best)
Obesity (Adults 18+)	2019	605,345	29.9%	+10.1%	15 (2019)
Child Obesity (Grade School Children)	2018	38,100	10.6%	+11.6%	n/a
Cigarette Smoking (Adults 18+)	2019	175,800	8.0%	-12.0%	1 (2019)
Vaping, Current Use (Grades 8, 10, 12)	2019	37,100	12.4%	+11.3%	n/a
Binge Drinking (Adults 18+)	2019	240,000	11.1%	+4.4%	1 (2019)
Influenza Immunization (Adults 65+)	2019	223,600	63.9%	+22.8%	22 (2019)
Health Insurance Coverage (Uninsured)	2019	277,200	9.5%	-3.1%	n/a
Motor Vehicle Traffic Crash Injury Deaths	2019	231	7.2 / 100,000	-4.5%	7 (2019)
Drug Overdose Deaths Involving Opioids	2019	496	15.5 / 100,000	-21.6%	20 (2019)
Suicide Deaths	2019	653	20.4 / 100,000	-3.2%	40 (2019)
Unintentional Fall Deaths	2019	345	10.8 / 100,000	+29.0%	17 (2019)
Traumatic Brain Injury Deaths	2019	1,230	19.3 / 100,000	+1.1%	15 (2019)
Asthma Prevalence (Adults 18+)	2019	219,900	9.9%	+6.9%	29 (2019)
Diabetes Prevalence (Adults 18+)	2019	190,500	8.5%	+1.3%	13 (2019)
High Blood Pressure (Adults 18+)	2019	532,900	27.0%	+10.3%	7 (2019)
Poor Mental Health (Adults 18+)	2019	459,100	20.7%	+10.1%	28 (2019)
Coronary Heart Disease Deaths	2019	1,631	50.9 / 100,000	-1.0%	1 (2019)
All Cancer Deaths	2019	3,289	102.6 / 100,000	-0.6%	1 (2019)
Stroke Deaths	2019	912	28.4 / 100,000	+1.6%	1 (2019)
Births to Adolescents (Ages 15-17)	2019	289	3.8 / 1,000	-21.8%	10 (2018)
Early Prenatal Care	2018	35,975	76.2%	-1.0%	n/a
Infant Mortality	2019	250	5.3 / 1,000	-7.0%	24 (2017)
Childhood Immunization (4:3:1:3:3:1:4)††	2019	49,400	80.0%	+8.0%	7 (2019)

§ Relative percent change. Percent change could be due to random variation.

Figures subject to revision as new data is processed.

** State rank based on age-adjusted rates where applicable.

†† Data from 2019 NIS for children aged 24 month (birth year 2017).